

O

FAR

On
small
where
empti
where
a mean
backs.

The
and oth
best to
every C

Sin
all trea
tioned,
because

The
He may
commit
others b
and obs
vantage
consists
exciter,
making
as the b

ONTARIO DEPARTMENT OF AGRICULTURE.

...BOOKS...

....FOR....

FARMERS, STOCKMEN, DAIRYMEN AND FRUIT GROWERS.

BY PROF. J. B. REYNOLDS, ONTARIO AGRICULTURAL COLLEGE.

THE FARM LIBRARY.

One very noticeable feature in the home surroundings on most farms is the smallness and incompleteness of the Library. Whether for general reading, whereby the long winter evenings may be robbed of their lonesomeness and emptiness, or for literature more especially bearing on the farmer's work, whereby the working hours on the farm may be informed with an interest and a meaning hitherto unknown, the average country home is ill supplied with books.

The purpose of this bulletin is to point out briefly what advantages, material and otherwise, come from the possession and use of wisely-selected books, how best to use books, and to submit a list, some or all of which it would be well for every Ontario farmer to own.

Since this is addressed principally to farmers, the books to be recommended all treat of agricultural topics. General science and literature are not mentioned, not because the farmer may not be interested in these as well, but because these subjects are beyond the scope of the present bulletin.

The farmer need not be, should not be, merely "The man with the hoe." He may think, and be a better farmer for so doing. He may observe, and commit fewer blunders for so doing. He may theorize, and help himself and others by his speculations. He may read, and if he reads wisely, his thinking and observing and consequently his farming will be improved. In fact the advantage in the wise use of books on Agriculture, as well as on other topics, consists not only in the information obtained; thinking and observing are also excited, and hence a good book introduces into farm life one great essential to making it interesting, namely, the healthful employment of the mind as well as the body.

Under proper surroundings farm work may have an immense advantage over the majority of occupations in town or city. And that advantage is the intellectual interest that may attach itself to the most trivial as well as the most important farm operation. The preparing of the land for seed, the sowing of the seed, the checking and killing of weeds and insects, the rotation of crops, the feeding and breeding of all kinds of stock,—all of these involve labor and care, it is true, but they involve also principles and laws of nature most absorbing in interest, an interest that will make the labor a delight and will extend over into hours of leisure.

The farmer, man or boy, whose interest in the meaning of farm operations has been aroused, and who has one or two good books on Agriculture at hand, will never be at a loss how to spend his leisure hours. And just here let me remove a misconception that generally prevails regarding the proper use of such books. It will probably be understood that these books are to be purchased, one or two at a time, read through more or less attentively and with more or less labor, the matter of them digested as well as may be, and then the books set aside, to be of no further use to the one who has read them. The wise man does not use his books so. He may never touch a certain book until some question, suggested by the work of the farm, demands solution. He appeals to his own experience, perhaps to his neighbors; and finally to the collected experience of a large number of thinking, observing men. This last he should find in his library, for a book on Agriculture, to be of much use to the practical farmer, must be adapted for reference and consultation, must become finally a familiar friend and adviser.

To illustrate this point. Suppose a farmer is anxious to know how he can produce milk at less cost than at present. Up to the present time, his dairy has not paid any too well. He has, we shall suppose, been accustomed to pasturing his herd during the summer. One thing that occurs to him is to lessen the cost of feeding, and soiling is mentioned as probably worth considering. He has never practised soiling, nor have any of his neighbors that he consults. He goes to his library, and takes down a certain volume. He finds from the table of contents that chapter 14 deals with soiling. In this chapter the benefits of soiling are summarized in the following manner:—"First, the saving of land; second, the saving of fencing; third, the economizing of food; fourth, the better condition and greater comfort of the cattle; fifth, the greater product of milk; sixth, the attainment of manure." The reader concludes that this is in the right direction, but may be only theory. He finds it supplemented by practical experience of a well known authority:—"Twenty cows, kept in stalls, were fed green food supplied six times a day. They were allowed exercise in the open yard. These twenty cows subsisted on the green crops from seventeen acres of land where fifty acres had previously been required." This is again backed up by the author's own experiment, which he gives in detail and then sums up as follows:—"This shows that in Wisconsin one acre of soiling crop equals about two and one-half acres of good blue-grass pasture for feeding dairy cows." Then follows a list of soiling crops to be cut at successive times throughout the entire summer, followed by a discussion of the amount of labor involved, with a final paragraph on partial soiling.

All this information, which may prove of immense value to the farmer who thus consults the book, is obtained without necessarily knowing anything about the contents of the remaining chapters. The benefits thus derived from the possession of a well-chosen library will pay for the library many times over, to say nothing of the added interest that is attached to work conducted after this fashion. The matter on "soiling" above referred to covers only four pages of a book containing over 600 pages of matter presumably as good. To read such a large book through from beginning to end, taking the chapters consecutively, would be a tremendous as well as an unprofitable task; but when one is hot-footed in search of information on some particular point, a library becomes a veritable mine of wealth to its owner.

use advantage
vantage is the
as well as the
seed, the sow-
the rotation of
e involve labor
of nature most
eligit and will

arm operations
culture at hand,
ist here let me
oper use of such
o be purchased,
d with more or
then the books

The wise man
ook until some
He appeals to
o the collected
s last he should
to the practical
become finally a

ow how he can
time, his dairy
ustomed to pas-
him is to lessen
rth considering.
hat he consults.
e finds from the
chapter the bene-
st, the saving of
ood; fourth, the
reater product of
es that this is in-
emented by prac-
s, kept in stalls,
owed exercise in
rops from seven-
quired." This is
ves in detail and
e acre of soiling
ature for feeding
successive times
amount of labor

ue to the farmer
knowing anything
has derived from
ary many times
work conducted
o covers only four
ably as good. To
ing the chapters
fitable task; but
articular point, a

First and foremost, of course, every farmer should take at least one general agricultural paper, one published in this province. Our most successful farmers take several, carefully preserve them and have them bound in complete volumes. Many a hint will alone more than repay the cost of a year's subscription. By having the indexes bound in with the volumes they will be found to be very valuable for reference. The importance of an home paper cannot be over estimated.

The following list of books is prepared to suit a wide variety of tastes, and a wide range of agricultural pursuits. Some of the books are very simple and purely practical, others make more of an effort to combine science with practice, giving principles as well as rules, with the belief that the intelligent farmer wishes to know *why* as well as *how*. The writer of this bulletin is confident that most of the former prejudice against science in Agriculture has passed away. He believes that the Ontario farmer of to-day is anxious to avail himself of every opportunity to advance his interests, and that one of the best means to this end is to make use of the experience and the experiments of wiser men.

A Brief Description of some of the Books that are recommended for Farmers' Reading.

Division I.

SOIL AND CROP.

THE FERTILITY OF THE LAND.—*Roberts*. 372 pages. \$1 25. (The MacMillan Co.)

An excellent book on maintaining and increasing soil fertility. Discusses—

Cultivation of the Soil.
Fertilizers.
Drainage.
Conservation of moisture.
Rotation of crops.

Exception may be taken to some of the author's statements regarding depth and frequency of plowing.

THE SOIL.—*King*. 275 pages. 65 cents. (The MacMillan Co.)

A complete and very readable treatment of this subject. Discusses—

Origin and function of soils.
Texture, composition and kinds of soils.
Nitrogen of the soil.
The water and the air of the soil.
Soil temperature.
Drainage and irrigation.
Tillage and fertilizers.

A BOOK ON SILAGE.—*Woll*. 185 pages. \$1.00. (Rand, McNally & Co.)

Perhaps the fullest treatise on the subject at present available. Treats of—

Silage crops.
Different kinds of silos.
Comparison of silage with other feeds.

Division 2.

LIVE STOCK.

HORSE BREEDING.—*Sanders.* 422 pages. \$1.50. (J. H. Sanders Co.)

A practical treatise on—

- The general principles of breeding.
- Selection of breeding stock.
- General management of stallions, brood mares, and foals.
- Breeds of horses.
- Diseases peculiar to breeding stock.

CATTLE BREEDING.—*Warfield.* 386 pages. \$2.00. (J. H. Sanders Co.)

A practical book by a practical breeder. The purely theoretical part is short, and special attention is given to the application of theory to practice. The book is specially suited to beginners and less scientific readers, and presents the subject in a clear, logical manner.

THE DOMESTIC SHEEP.—*Stewart.* 371 pages. \$1.75. (American Sheep-breeding Press)

The most up-to-date book on sheep at the present time. Treats of—

- The natural history of sheep.
- Varieties and breeds of sheep.
- The science and art of breeding and feeding.
- Housing, products, diseases, etc.

PIGS:—BREEDS AND MANAGEMENT.—*Sanders Spencer.* 175 pages. \$1.00. (Vinton & Co., London.)

A fully illustrated book, treating of—

- Breeds of swine.
- Selection and management of boar and sow.
- Management of young pigs.
- Diseases of the pig.

In addition to this, there is a valuable chapter on bacon and ham curing.

HORSES, CATTLE, SHEEP AND SWINE.—*Curtis.* 334 pages. \$2.00.

Concise, interesting, and well illustrated. A weak point in the book is the complete ignoring of two breeds of swine—Tamworths and Improved Yorkshires.

STOCK-BREEDING.—*Miles.* 410 pages. \$2.00. (Appleton, New York.)

Discusses fully—

- Heredity, atavism, variation
- Methods of breeding, such as in and-in breeding, cross-breeding.
- Pedigree.
- Form as an index of quality.
- Selection.

The author favors in-breeding to a greater extent, perhaps, than will be accepted by many breeders.

FEEDS AND FEEDING.—*Henry.* 600 pages. \$2.00. (Madison, Wisconsin.)

A valuable book for reference. Scientific, and at the same time very practical. Treats of—

- Plant growth and animal nutrition.
- Feeding stuffs.—grain, grass, straw, clover, ensilage, soiling.
- Feeding and caring for farm animals.

Division 3.

GENERAL AGRICULTURE.

AGRICULTURE.—*C. C. James*. 200 pages, 30 cents. (Morang & Co., Toronto.)

This book is designed for use in public schools. In a brief and popular manner, it treats of

The plant, the soil, and crops of the field.
The garden, orchard, and vineyard.
Weeds, insects, and the diseases of plants.
Live Stock and Dairying.
Bees, birds, forestry, roads.

FIRST PRINCIPLES OF AGRICULTURE.—*Voorhees*. 207 pages. (Silver, Burdette & Co., Boston.)

Discusses many subjects in a general way, such as—

The constituents of plants.
Composition of soils, and methods of improving them.
Manures,—natural, artificial, and concentrated.
Rotation of crops.
Selection of seed.
Farm crops.
Foods, digestibility of, feeding standards.
Principles of breeding.
Pure breeds of live stock.
Products of the dairy.

For general farming, this book will be found very suggestive and helpful.

AGRICULTURE.—*Storer*. 1875 pages in three volumes. \$5.00. (Scribner's, New York.)

This work discusses in a very complete manner the scientific principles upon which Agriculture depends. It is recommended more particularly to Institutes and Farmers' Clubs. Treats of—

Soil and air in relation to the plant.
Water in relation to the soil.
Tillage.
Manures of all sorts.
Humus and lime as physical and chemical agents in the soil.
Rotation of crops.
Irrigation.
Hay, pastures, ensilage.

CHEMISTRY OF THE FARM — *Warington*. 183 pages. 90 cents. (Vinton & Co., London.)

A good, practical, readable book, treating of—

Plant growth.
Soil, air, and plant.
Plant food, absorbed and retained.
Farm crops, their distinctive characteristics.
Animal nutrition.
The food values of farm crops.
The formation of flesh, fat and bone.
Food in relation to manure.

CORN PLANTS, THEIR USES AND WAYS OF LIFE.—*Frederick Leroi Sargent*. 106 pages. 75 cents. (Houghton, Mifflin & Co.)

An interesting study of wheat, oats, rye, barley, rice and maize. Illustrated. Especially adapted to the use of teachers in agriculture and in nature study.

Division 4.

DAIRYING.

AMERICAN DAIRYING.—*H. B. Gurler*. 252 pages. \$1.00. (Breeder's Gazette, Chicago.)

A practical treatise, written in a plain and popular style. Discusses—

- Breeding, feeding, and management of the dairy herd.
- Care and handling of milk.
- Manufacture and marketing of butter.
- Creamery work.
- Babcock milk test.
- Construction and care of building and utensils.
- Cream-gathering creameries.

THE BIGGLE COW BOOK.—*Jacob Biggle*. 136 pages. 50 cents. (Wilmer Atkinson Co., Philadelphia.)

A small book, written in simple language, and well illustrated. Treats of—

- Breeds of dairy cattle.
- Feeding and management of herds.
- Butter and cheese manufacture.
- Imitations.
- Bye-products.
- Marketing of dairy products.

THE BOOK OF THE DAIRY.—*Fleischmann*. 330 pages. \$2.75. (Blackie & Son, London.)

This work has been translated from the German. It is both scientific and practical. Discusses—

- The secretion, properties, and composition of milk.
- Testing and sale of milk.
- Bacteriological study of milk.
- Manufacture of butter and cheese.
- The bye-products of milk.
- Economic aspects of dairying.
- Margarine and margarine cheese.

MILK AND ITS PRODUCTS.—*Wing*. 230 pages. \$1.00. (The MacMillan Co., N. Y.)

Discusses—

- Secretion and composition of milk.
- Testing milk.
- Fermentation and its control.
- Marketing milk.
- Separation and ripening of cream.
- Manufacture and marketing of butter and cheese.
- Varieties of cheese.
- Bye-products of the dairy.

Division 5

POULTRY.

ARTIFICIAL INCUBATING AND BROODING.—*Cypher*. 146 pages. 50 cents.

A practical work relating the experiences of the most successful operators of incubators and brooders.

INCUBATION AND ITS NATURAL LAWS. 111 pages. 50 cents.

This book is the most complete of its kind. Treats of—

- The egg, in all stages of incubation.
- The incubator, management of.

SUCCESS WITH POULTRY. 96 pages. \$1.00.

This work contains much practical and reliable information on the general subject of Poultry for Profit. Discusses—

- Producing eggs in winter.
- Raising broilers for market.
- Breeds of poultry, their characteristics.

Division 6. FRUIT, FLOWERS, AND VEGETABLES.

VEGETABLE GARDENING.—*Green.* 224 pages. \$1.25. (Webb Publishing Co., St. Paul.)

This is a book that should be in the hands of every farmer and gardener. It gives full directions for all gardening operations, and deals with the cultivation of all garden vegetables.

FLOWERS AND HOW TO GROW THEM.—*Rexford.* 175 pages. 50 cents. (Penn Publishing Co., Philadelphia.)

This little volume will be appreciated by every lady who cultivates flowers. It is written not for the professional, but for the amateur who wishes to grow a good collection for the house.

THE PRINCIPLES OF FRUIT GROWING.—*Bailey.* 514 pages. \$1.25. (The MacMillan Co.)

An up-to-date book, treating of

- The effects of location and climate upon fruit.
- Planting, tilling, and fertilizing of orchards and vineyards.
- Care and management of orchards.
- Spraying for insects and diseases.
- Picking, packing, and storing fruits.

BUSH FRUITS.—*Card.* 537 pages. \$1.50. The MacMillan Co.)

One of the latest and best works on the growing of small fruits. Contains also a cyclopedia of reference to varieties, species, insects and diseases.

Division 7. PLANT AND ANIMAL LIFE.

THE STORY OF THE PLANTS—*Grant Allen.* 213 pages. 40 cents. (Newnes, London.)

Contains a short and interesting account of the principal facts of plant life, in language suited to unscientific readers. Functions and habits of plants are discussed.

THE GREAT WORLD'S FARM.—*Selina Gage.* \$1.50.

A well written and well-illustrated book admirably adapted to give young people, and older people too, a readable account of plant-life. Its purpose is to give some account of Nature's crops and how they live and grow.

THE STUDY OF ANIMAL LIFE.—*J. A. Thomson.* 375 pages. \$1.75. (John Murray, London.)

An excellent and interesting book, discussing—

- The every-day Life of animals.
- Their internal activities.
- Their forms and structure.
- The theory of animal life.

INSECTS INJURIOUS TO FRUITS.—*Saunders.* 436 pages. \$2.00. (Lippincott & Co., Philadelphia.)

This work by Dr. Saunders, of the Experimental Farm, Ottawa, is the standard treatise on injurious insects. The insects discussed are classified according to the plants they infest. It is well illustrated.

INSECT LIFE.—*Comstock.* 349 pages. \$2 50. (Appleton & Co., New York.)

This work is intended as an introduction to Nature Study. The structure and habits of insects living in particular kinds of localities are treated under different heads, as—

Pond life.
Brook life.
Orchard life.
Forest life.
Roadside life.

—:O:—

HOW TO OBTAIN THE USE OF THESE BOOKS.

THE PRIVATE LIBRARY.

For such books as are recommended above, the surest way to profit from them is to have them in one's own library. Story books and biographies may be read and laid aside for good, and for books of this sort access to a public library is perhaps as good as a private library. But, as has been suggested before, a book on Agriculture of the right kind, is not to be so lightly disposed of. It must be at hand continually for reference in order to render its best value. Therefore the private library is recommended as the best of all means to secure profit from Agricultural books. A few dollars a year invested in some of the books here recorded will soon result in a snug library. The books may be readily procured through reliable book sellers or through the publishers of our provincial farm papers.

THE FARMERS' INSTITUTE LIBRARY.

Institutes would do well to take hold of this question and found a library for the benefit of their members. The books purchased could be divided into two, three, or more groups and left with as many active members of the Institute at central points, and from there loaned to such men as would take the trouble to call for them. The library should, of course, be increased by yearly appropriations.

